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AUTHOR Goettel, Robert J.
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ABSTRACT

There are two related aspects in this study. First, the levels of professional staff resources are examined in terms of two key characteristics of local districts--property wealth per pupil and district type or location. Second, the changes in staff resources that may be occurring are examined. In order to determine if cutbacks are occurring, the types of resources and services being reduced or improved, and the types of districts improving or reducing resources and services, the professional staff per 1,000 students in the various types of districts in the 1975-76 school year were compared with their service levels in 1977-78. Among the findings were that pupils in the higher wealth school districts outside of New York City have the benefit of professional staff services (in most staff categories) well above the norm for other districts although these districts have only 15 percent of the state's total aidable pupil units: New York City and the low-wealth suburban New York City area districts have the lowest staff ratios in most categories; and the variations in staff ratios among districts outside of New York City, in certain wealth categories, are more a function of district type than of wealth. (Author/IPT)

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THE DISTRIBUTION OF
PROFESSIONAL STAFF RESOURCES
AMONG THE SCHOOL DISTRICTS
OF NEW YORK STATE

Robert J. Goettel

PREPARED FOR:
Education Study Unit
New York State Budget Division

May 1979

PROJECT STAFF

Robert J. Goettel Director
Cindy Brownstein research assistant
Stephen Greenstein systems analyst
Sarah Newcomb research assistant
Kathie Riley secretary
Linda Rizzo research assistant
John Willard systems analyst

ABSTRACT

This study has two purposes. First, differences in the professional staff resources grouped according to wealth (full valuation per TAPU) and district type (urban/suburban/non-metropolitan, upstate and downstate) were examined for four broad categories of staff; administrators, basic subject classroom teachers, support staff and special subject teachers. The data for this cross sectional analysis were for the 1977-78 school year. Second, changes in the same categories of staff resources were examined for the two year period 1975-76 to 1977-78. We sought to determine the kinds of changes in staff resources that had occurred and in what types of districts those changes took place.

The major findings of this study can be summarized as follows:

- ° Pupils in the highest wealth school districts outside of New York City have the benefit of professional staff services in most staff categories well above the norms for other districts (with New York City not included in determining state norms). However, these "favored" districts have only 15 percent of the State's total aidable pupil units (TAPU).
- ° New York City and low-wealth suburban New York area districts have the lowest staff ratios in most categories. Indeed, New York City's K-6 basic subject classroom teacher ratio is 90 percent of the average of the rest-of-the-state, support staff 52 percent and special subject teachers 46 percent.
- ° The variations in staff ratios among districts outside of New York City in wealth deciles 3-10 are more a function of district type than wealth. The exception is special subject teachers where staff ratios are directly related to differences in wealth throughout the ten deciles.
- ° Upstate cities have support staff (counselors, psychologists, social workers, attendance teachers, health personnel) ratios about 10 percent above the state average, while suburban and non-metropolitan districts are 13-16 percent below. In contrast, non-metropolitan districts are nineteen percent above the state average in special subject teachers (art, music, physical education and driver education) while upstate city districts are nine percent below. Suburban New York area districts are well above on both categories of staff and downstate cities below on both.

- ° Most pupils are in districts where administrative and support staff resources were reduced between 1975-76 and 1977-78.
- ° Similarly, most pupils are in districts where K-6 basic subject classroom teacher ratios were improved between 1975-76 and 1977-78.
- ° Low-wealth districts with below average special subject teacher ratios reduced those ratios between 1975-76 and 1977-78 while high wealth districts with high ratios improved their standing.
- ° In other staff areas changes over the two-year period do not seem to be related to wealth, level of staff resources or rate of enrollment decline, though middle-wealth districts reduced support staff more than either low or high wealth district.
- ° The highest rates of enrollment decline are found in low-wealth, New York suburban and upstate city districts; the lowest decline rates are found in high-wealth upstate districts.

Based on this examination of staff ratios as a principal indicator of access to educational resources, changes in the state aid system should target aid in a manner that achieves the following objectives.

- Brings districts with low staff ratios--primarily in low-wealth New York area districts and in New York City--up to state norms.
- Provides pupils in city school districts with professional staff resources in the special subject areas consistent with state norms.
- Does not provide incentives for high-wealth districts to increase their current advantage relative to other districts. Indeed, for those high-wealth districts that also have low tax rates, greater reliance should be placed on local tax revenues than on state aid.
- Provides increases in state aid for most middle-wealth districts and upstate low-wealth districts that permit the vast majority of the pupils who are in districts whose educational resources are close to state norms, to continue to receive those levels of services.

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Section 1

PURPOSE AND METHODOLOGY

During the 1970's virtually all school districts in New York State have faced the dual problems of declining enrollments and severe fiscal constraints. Together these problems have contributed to a reduction in the number of professional staff employed in local school districts from 231,102 in 1971-72 to 218,102 in 1976-77. Over the same period enrollment in the State dropped by 5 percent. When staff reductions are less severe than enrollment declines, the absolute level of professional staff resources available to student increases. Conversely, if professional staff drop more rapidly than enrollments, then absolute service levels are reduced. During the period 1973-74 to 1975-76 the number of professional staff per 1,000 enrolled pupils in New York showed a slight drop from 61.1 to 60.3.

Local school districts have very different capacities to deal with enrollment declines and fiscal constraints as a result of their unique problems, their relative wealth and state aid policy. For example, the 61.1 to 60.3 drop in the total professional staff ratio cited above is largely explained by the fiscal crisis in New York City in which the number of professional staff was reduced by nine percent and the district's ratio from 61.3 to 55.4. Other factors influencing the ability of individual districts to cope with fiscal constraints and enrollment declines include year-to-year changes in state aid, the relative growth in local property values and the willingness of district voters to maintain or improve existing service levels. Just as important, however, local districts do not begin to cope with fiscal constraints and enrollment declines from the same starting line—many begin with relatively favorable staffing and service patterns while others provide their children less than average levels of services. In 1975-76 the lowest tax base districts in New York—those with full value per pupil less than \$20,000—had 55.6 professional staff per 1,000 enrolled pupils compared to the 69.5 available in the wealthiest districts—those with full value per pupil above \$70,000.¹ Moreover, as per pupil expenditures increased, the levels of administrative, pupil support and special subject staff increased at a faster rate.² These types of wealth-related disparities in educational services among the State's districts contributed to the decision in Levittown v. Nyquist where the

1 "An Analysis of the Impact of State Aid Formulas on Local School Districts in New York State." Summary Report of Study #1, Project 842, New York State School Finance Law Study Project, (Albany: University of the State of New York, The State Education Department, 1978, p. 12).

2 Analysis of Data Contained in "School District Basic Fiscal Data, 1974-75" and "New York State Consolidated Data Base, 1974-75," Princeton: EPRI, Educational Testing Service, 1976.

Supreme Court found New York's system of funding public schools to be unconstitutional. Development of a fair and efficient response to the decision in Levittown requires, in part, attention to those factors of state aid policy that seem to be systematically related to inter-district differences in the availability of resources and programs.

Purpose of the Study

There are two related purposes of this study. First, the levels of professional staff resources are examined in terms of two key characteristics of local districts: property wealth per pupil and district type or location. The connection between property wealth and staff resources has been explored in a general fashion, but little attention has been given to the variations that exist across urban, suburban, and rural districts, or between districts upstate and those in the metropolitan New York City area. This study, then, groups districts by full value per TAPU and by the following geographical categories: New York City, other metropolitan New York cities, metropolitan New York suburbs, upstate cities, upstate suburbs, and non-metropolitan or rural areas.

The second purpose of this study concerns the changes in staff resources that may be occurring. State-wide data about staff ratios often mask the shifts that occur among different types of districts, or among different types of services. Indeed, local district officials are quick to cite cutbacks in staff and presumed reductions in programs. In order to determine if cutbacks are occurring, what types of resources and services are being reduced or improved, and what types of districts are improving or reducing resources and services, we compared the professional staff per 1,000 pupils in the groups of districts indicated above in the 1975-76 school years with service levels in 1977-78.

This study, then, provide descriptive data about the relationship between property wealth and district type, and both the absolute level and changes in levels of staff resources.

Methodology

The procedures used in this study involved three major decision steps: the aggregation of professional staff data for each school district, the assignment of districts to property wealth per pupil categories, and the assignment of districts to district type or geographical location categories.

Staffing data. All data for this study were provided by the New York State Education Department on computer tapes developed from the Department's routine data collection activities. Fiscal data included the actual figures for full valuations, pupil counts, expenditures, tax rates and school levies, with the exception of approved operating expenditures for 1977-78 where estimated data were used. Staff data were provided on the "FTE Tapes" (Full Time Equivalent) developed by the SED's Information Center on Education from the annual Basic Educational Data Systems (BEDS) survey. The FTE tapes for 1975-76 and 1977-78 include approximately 600,000 records,

3 Total Aidable Pupil Units

one for each teaching or administrative assignment code for each teacher or administrator in the State. The approximately 1,000 assignment codes classify the subjects or specific administrative responsibilities to which each professional employee is assigned. On average each teacher in New York State lists 2 1/2 assignment codes. Each record on the FTE tape includes the Social Security number of the teacher, the district and school, an assignment code and the full time equivalency applied to that particular assignment. For example, if a teacher taught seventh grade math for three periods each day and seventh grade science for two, the math assignment code listing would show an FTE of .6 and the science listing .4.

Aggregation to district level staffing categories occurred in two steps. First, each of the approximately 600,000 teacher records were grouped by school district. About 300 of the records on each tape had incomplete district codes, so they were eliminated. Second, the assignment codes were aggregated into eight non-teaching, six special subject and fourteen classroom teacher categories by elementary, secondary or central office assignment areas. These staff categories are listed in Table 1. A print-out for each district in the State was produced listing the FTE staff for each of the categories and levels including group totals (See Appendix A). This aggregation of assignment code categories for 1975-76 and 1977-78 plus the district level fiscal data represents the operational data base for this study.

TABLE 1

PROFESSIONAL STAFF CATEGORIES

<u>Administration</u>	<u>Classroom</u>
Central Office	K-6 Common Branch
Building Level	English
Special Education	Social Studies
	Science
<u>Support</u>	Math
Attendance Teacher	Foreign Language
Social Worker	Home Economics
Psychologist	Industrial Arts
Counselor	
Medical	Humanities
	Health
<u>Special Subject</u>	Business
Performing Arts	Bilingual
Art	Other
Music	
Physical	
Driving	
Special Education	

Grouping districts by wealth per pupil. Districts were grouped in deciles according to full valuation per TAPU 1976-77 with approximately equal TAPU in each decile and with New York City excluded. Thus, we tried to place 230,000 TAPU in each decile, one-tenth of the TAPU outside of New York City. Table 2 lists the full valuation categories with the actual TAPU and number of districts in each group.

TABLE 2

Property Tax Base Per TAPU Deciles and TAPU, 1976-78

Property Tax Base Per TAPU		TAPU
1. >	\$ 86,191	225,655
2.	\$ 68,913 - 86,191	235,787
3.	\$ 58,461 - 68,912	252,189
4.	\$ 52,067 - 58,460	212,605
5.	\$ 46,794 - 52,066	236,721
6.	\$ 42,654 - 46,793	232,705
7.	\$ 39,051 - 42,653	232,305
8.	\$ 35,233 - 39,050	234,560
9.	\$ 30,763 - 35,232	231,129
10 <	\$ 30,763	237,248

Grouping districts by type or geographical location. The classification for districts used in this study is as follows:

- . New York City
- . Metropolitan New York Area Cities: Cities other than New York City in the Metropolitan New York Standard Metropolitan Statistical Area (SMSA) which includes the counties of Nassau, Suffolk, Westchester, Rockland and Putnam.
- . Metropolitan New York Area Suburbs:
- . Upstate SMSA Suburbs: All suburban districts located in the eight SMSAs outside the New York City SMSA.
- . Upstate SMSA Cities: All city districts located in the upstate SMSAs outside the New York City SMSA.
- . Non-metropolitan Area: All 31 counties in New York State which are not included in the nine SMSAs.

While this breakdown has limitations, it is particularly useful in analyzing professional staffing patterns in local school districts. First, the classification permits a rough look at upstate/downstate differences. On balance, downstate school districts—those in the Metropolitan New York City area—have higher property values per pupil, personal incomes, expenditures, and tax rates, than upstate districts. These differences have prompted recommendations for adjustments in state aid based on regional differences in the cost of educational services. By examining the patterns of professional staff ratios among downstate, upstate suburban, and non-metropolitan areas, one can make judgements regarding the need for such an adjustment. Second, city and non-city districts are presumed to have different needs for certain types of staff resources, or at least they use staff in some areas more intensively than in others. In addition, city districts in New York are subject to tax limits while non-city districts vote on school budgets. Finally, the property tax base of city districts is, on average, growing more slowly than the tax base of suburban and rural districts. The structural and fiscal differences between city and non-city

4 See "New York's System of School Finance: With Example From The 1975-76 School Year," (Albany: Education Study Unit, State Division of the Budget, December 1976).

districts warrant an examination of how they deploy available professional staff resources.

Weighting the data for district size. A basic premise of this study is that it is important to know what professional staff resources are available to the pupils in local school districts. Therefore, with the exception of district tax rates, all data presented in this study are "weighted" to take into account the relative size of school districts. For example, the third decile in the upstate city category includes two cities, Lackawanna and Rochester. Since Rochester is several times larger than Lackawanna, the data in that cell are dominated by Rochester's characteristics; the data do not reflect a simple average of the two districts. This approach permits us to make statements about pupils rather than about school districts—for example, to compare the number of special subject teachers per 1,000 pupils available to the pupils in city districts in the third decile to the number available to pupils in districts with different characteristics.

The limitations of this classification of districts in New York also need to be understood. Since the classification is basically geographical many districts are quite atypical in terms of the type or group to which they have been arbitrarily assigned. For example, the non-metropolitan area includes small cities and suburban-type districts in addition to those districts that most observers would describe as "rural" in character as well as in preferences for educational services. The cities of Hudson, Jamestown or Ithaca are obvious examples. In contrast, there are many districts in SMSA counties that are just as rural as their counterparts that have been arbitrarily assigned on the basis of geographical location to the non-metropolitan group.

Districts and TAPU by wealth and type. Table 3 on the following page presents the number of districts, TAPU for 1977-78 and the change in TAPU between 1975-76 and 1977-78 for all districts grouped by full valuation per TAPU 1976-77 and district type. Also, the districts are listed for the Metropolitan New York Area Cities and the Upstate Cities groups. New York City's full valuation per TAPU of \$71,804 would place it in the second decile so it is listed there even though New York was excluded in calculating the deciles. Table 4 shows each type of district's relative share of the total TAPU in New York State. Thirty-two percent of the TAPU are in New York City, two percent in other cities in the metropolitan New York area, 22 percent in New York area suburbs, 8 percent in Upstate cities, 20 percent in Upstate suburbs, and 14 percent in non-metropolitan or rural areas of the State.

We noted above that declining enrollments have affected districts in New York very differently, and this is illustrated in Table 3 as well as Table 5 in which the ten groups of districts with the highest declines in TAPU between the fall of 1975 and the fall of 1977 are compared to the ten with the lowest declines. (There are 45 groups or cells in Table 3.) Those cells with the highest declines—between 5.5 percent and 8.6 percent over the two year period—include five of the ten New York City suburban groups (deciles 4, 5, 8, 9, and 10) and three of the ten upstate city groups (deciles 6, 7, and 10). The ten low decline groups are distributed among four of the district types, though there is no representative from the Metropolitan New York suburbs. However, seven of the ten low decline groups are in the upper five deciles including the wealthiest upstate suburban,

Table 3
Number of Districts, TAPU 1977-78 and Names
of Cities by Tax Base Per TAPU 1976-77 and District Type

Number of Districts						
TAPU 1977-78 (% change 1975-76 to 1977-78)						
Property Tax Base Per TAPU 1976-77	New York City	Metro- N.Y. Cities	Metro- N.Y. Suburbs	Upstate Cities	Upstate Suburbs	Non-Metro Areas
> \$ 86,191		2 - Rye	68	1 - Oswego	4	32
1		- White Plains				
		9,737 -6.0%	163,171 -3.8%	5000 .9%	1,332 -1.0%	23,874 -1.9%
\$ 68,913 -	New York	4 - Glen Cove	24	1 - Albany	13	12
2	86,191	- Long Beach				
		- New Rochelle				
		- Yonkers				
		44,270 -4.0%	118,728 -5.1%	8,693 -2.3%	25,649 -5.4%	14,399 -3.1%
\$ 58,461 -		0	14	2 - Lackawanna	15	19
3	68,912			- Rochester		
			74,124 -4.9%	41,643 -5.8%	77,034 -5.1%	32,884 -3.4%
\$ 52,067 -		1 - Mt. Vernon	10	3 - Beacon	13	20
4	58,460			- Poughkeepsie		
				- Schenectady		
		10,384 -2.0%	72,776 -7.1%	17,282 -4.8%	50,350 -5.5%	39,176 -2.5%
\$ 46,794 -		0	9	3 - Watervliet	19	20
5	46,793			- Lockport		
				- Syracuse		
			70,535 -6.6%	32,687 05.4%	75,989 -3.4%	31,845 - .6%
\$ 42,654 -		1 - Peekskill	8	4 - Binghamton	19	25
6	46,793			- Niagara Falls		
				- Geneva		
				- Saratoga Springs		
		3,178 -4.0%	52,175 -1.0%	33,488 -5.8%	73,263 -2.9%	53,649 -3.8%
\$ 39,051 -		0	5	4 - Buffalo	16	25
7	42,653			- Amsterdam		
				- Fulton		
			42,171 -2.9%	64,585 -6.0%	56,531 -3.5%	45,652 -3.9%
\$ 35,232 -		0	6	4 - Elmira	23	33
8	39,050			- No. Tonawanda		
				- Troy		
			47,411 -8.6%	35,305 -5.7%	77,145 - .7%	50,751 -43%
\$ 30,763 -		0	4	2 - Cohoes	38	38
9	35,232			- Tonawanda		
			33,504 -6.0%	6,651 -4.3%	107,267 -4.1%	59,548 -2.7%
\$ 30,763		0	1	2 - Oneida	47	66
10				- Rome		
			18,563 -6.8%	12,229 -8.0%	80,821 -1.5%	91,382 -2.6%
	1,006,231	65,569	693,158	258,593	631,381	443,160
	32%	2%	22%	8%	20%	14%

TABLE 4

TAPU, Number of Districts and Average TAPU Per District 1976-77

	<u>TAPU</u>	<u>%</u>	<u>Districts</u>	<u>%</u>	<u>Average TAPU Per District</u>
New York City	1,006,231	32	1	--	1,006,231
Metropolitan New York Cities	65,569	2	8	1	8,196
Metropolitan New York Suburbs	693,158	22	149*	22	4,652
Upstate Cities	258,663	8	26	4	9,946
Upstate Suburbs	631,381	20	207*	30	3,050
Non-Metropolitan Areas	443,160	14	290	42	1,528
	<u>3,098,162</u>	<u>98</u>	<u>680</u>	<u>100</u>	

* The elementary school districts that feed the four high school districts have been combined with the high school districts to create four K-12 districts.

TABLE 5

Decline in TAPU 1975-76 to 1977-78, Ten Highest and Ten Lowest Groups

Ten Highest Decline Groups

<u>District Type</u>	<u>Wealth Decile</u>	<u>TAPU Decline Rate</u>
New York Suburban	8	-8.6%
Upstate City	10	-8.0
New York Suburban	4	-7.1
New York Suburban	10	-6.8
New York Suburban	5	-6.6
New York Suburban	9	-6.0
Upstate City	7	-6.0
Metropolitan New York Cities	1	-6.0
Upstate City	6	-5.9
Upstate Suburban	4	-5.5

Ten Lowest Decline Groups

<u>District Type</u>	<u>Wealth Decile</u>	<u>TAPU Decline Rate</u>
Non-metropolitan	5	- .6
Upstate Suburban	8	- .7
Upstate City	1	- .9
Upstate Suburban	1	-1.0
New York Suburban	5	-1.0
Upstate Suburban	10	-1.5
Non-metropolitan	1	-1.9
Metropolitan New York Cities	4	-2.0
Upstate City	2	-2.3
Non-metropolitan	4	-2.5

upstate city and non-metropolitan area groups, in contrast to the high decline districts where six of the ten are in low wealth deciles including the poorest upstate cities and New York suburban districts. At least at the margins, then, higher rates of enrollment declines are associated with lower full valuations per pupil and with New York suburban and upstate city districts while lower rates of decline are more characteristic of higher wealth upstate districts.

Some Cautions

The Basic Educational Data System (BEDS) including the Full Time Equivalent (FTE) professional staff component have, for the past decade, represented one of the most comprehensive reporting systems for program and teacher information in use in any state. While BEDS data have been routinely used to examine patterns of information about broad classes of districts or professional staff, their specific use in this study warrants some caution in interpreting the findings.

First, the FTE data used in this study are self-reported by teachers and administrators, and they are not audited. Some errors occur, like the 300 out of more than 600,000 records where the school district code was incomplete. We assume that such errors are randomly distributed across all districts and not likely to be found more frequently in one type of district than in others. The reader should be aware of the possibility of error, particularly in interpreting changes in staff ratios that may seem to be out of the ordinary, particularly in those groups that include only one or two districts.

Second, while the focus of this study is on the effects of state aid policy, BEDS does not provide for separating staff funded by federal aid programs from those funded by state and local funds. Teachers and administrators do not report the source of funding for their assignment codes. This creates a distortion for those districts, primarily urban, where large percentages of professional staff are supported by federal aid programs. For example, the Big Five Cities receive about 10 percent of their revenues from the federal government compared to two or three percent in most other districts.

Third, distortions in the professional staff resources available to districts also occur as a result of participation in programs offered by Boards of Cooperative Educational Services (BOCES). Staff employed by a BOCES who work at a central BOCES facility are not included in the data for this study, but those BOCES staff assigned to specific locations in local districts are included. For example, if a special education teacher employed by a BOCES were located in one of District A's schools, that teacher would be counted in the FTE staff attributed to District A. But if District B's handicapped students are bussed to a BOCES center, the teacher who works with those children would not be included in the FTE count, and it would appear that District B has fewer staff than is actually the case. Small rural districts are most likely to be "undercounted" in this manner. Indeed, no vocational education teachers for districts other than the Big Five will be included.

Section 2

TOTAL STAFF, EXPENDITURES AND TAX RATES

This section presents data about Total Professional Staff per 1,000 ADM, Current Operating Expenditures per TAPU and tax rates. The general findings about these three factors are that the highest wealth districts have the highest staffing patterns and the lowest wealth districts the lowest ratios; city school districts as a group have higher than average ratios though New York City's is the lowest of all 45 groups in the State; average staff ratios in metropolitan New York suburbs are above the State average and above upstate suburban and non-metropolitan areas; and the substantially higher expenditures and tax rates in the metropolitan New York City area do not produce comparably higher staff ratios.

Table 6 presents the total staff ratios by wealth deciles and by district type. The four wealthiest deciles are all above the State average of 63.8 while the remaining six deciles are all below. Decile number 1 with about 85 percent of the TAPU in that decile located in New York City area districts, has an average staff ratio 15 percent above the State average while decile number 10 is eight percent below. New York City's ratio of 54.4 is the lowest of all 45 groups of districts. Upstate suburban districts at 60.0 are ten percent lower than the metropolitan New York suburban ratio of 65.9, a difference largely explained by the New York area's concentration of high wealth districts compared to lower wealth in upstate suburbs. Non-metropolitan districts are very close to the State average. Seventeen of the 45 groups of districts reduced staff ratios between 1975-76 and 1977-78. Eleven of the 17 are in deciles 4-7 that did not benefit substantially from either the relatively high tax bases of deciles 1-3 or increases in state aid that were targeted primarily to lower wealth districts.

Table 7 presents the total staff ratios, tax rates and current operating expenditures per TAPU plus the percentage change in each factor over the two-year period for all 45 groups of districts. Within the five district types the wealth advantage of the top two or three deciles is apparent, however the pattern in the remaining groups tends to be somewhat mixed, though the lowest groups usually show relatively low staff ratios. This pattern is clearly reflected in Figure 1 where the very steep drop between deciles 1-3 for all district types except the upstate cities is presented graphically. Of the five district types the non-metropolitan districts show the least variation in total staff ratios and tax rates in deciles 3-10.

The substantially higher tax rates and expenditures for all deciles in downstate districts compared to upstate areas is also apparent in Table 7. Within deciles tax rates are typically 70 to more than 100 percent higher downstate than in upstate areas, and current operating expenditures per TAPU are 20 to 50 percent higher. Total staff ratios, on the other hand, are as likely to be slightly lower in downstate groups within the same decile (i.e., deciles 1, 7, and 10) as they are to be slightly higher (deciles 5 and 8).

Table 8 shows the ten of the 45 groups of districts with the lowest

TABLE 6

Total Professional Staff Per 1,000 ADM By Tax Base Per TAPU and
District Type 1977-78

<u>Wealth Deciles</u>	<u>Group N</u>	<u>Staff Per 1,000 ADM</u>	<u>Ratio to State Average</u>	<u>Number of Groups Reduced</u>
1 (High)	5	[73.5]	1.15	1
2	5	[68.0]	1.07	2
3	4	[64.5]	1.01	1
4	5	[64.3]	1.01	3
5	4	62.1	.97	2
6	5	60.7	.95	4
7	4	63.6	1.00	2
8	4	61.6	.97	1
9	4	60.4	.95	0
10 (Low)	4	58.9	.92	1
<u>District Types</u>				
New York City	1	54.4	.89	0
Metro NYCities	5	68.9	1.08	2
Metro NY Suburbs	10	65.9	1.03	4
Upstate Cities	10	65.6	1.03	4
Upstate Suburbs	10	60.0	.94	4
Non-Metropolitan	10	63.1	.99	3
State Average		63.8		
Buffalo		72.3	1.13	
Rochester		69.2	1.08	
Syracuse		64.7	1.01	

[] Above State Average

Figure 1

Total Professional Staff Per 1,000 ADM
1977-78 By District Type and Tax
Base Per TAPU 1976-77

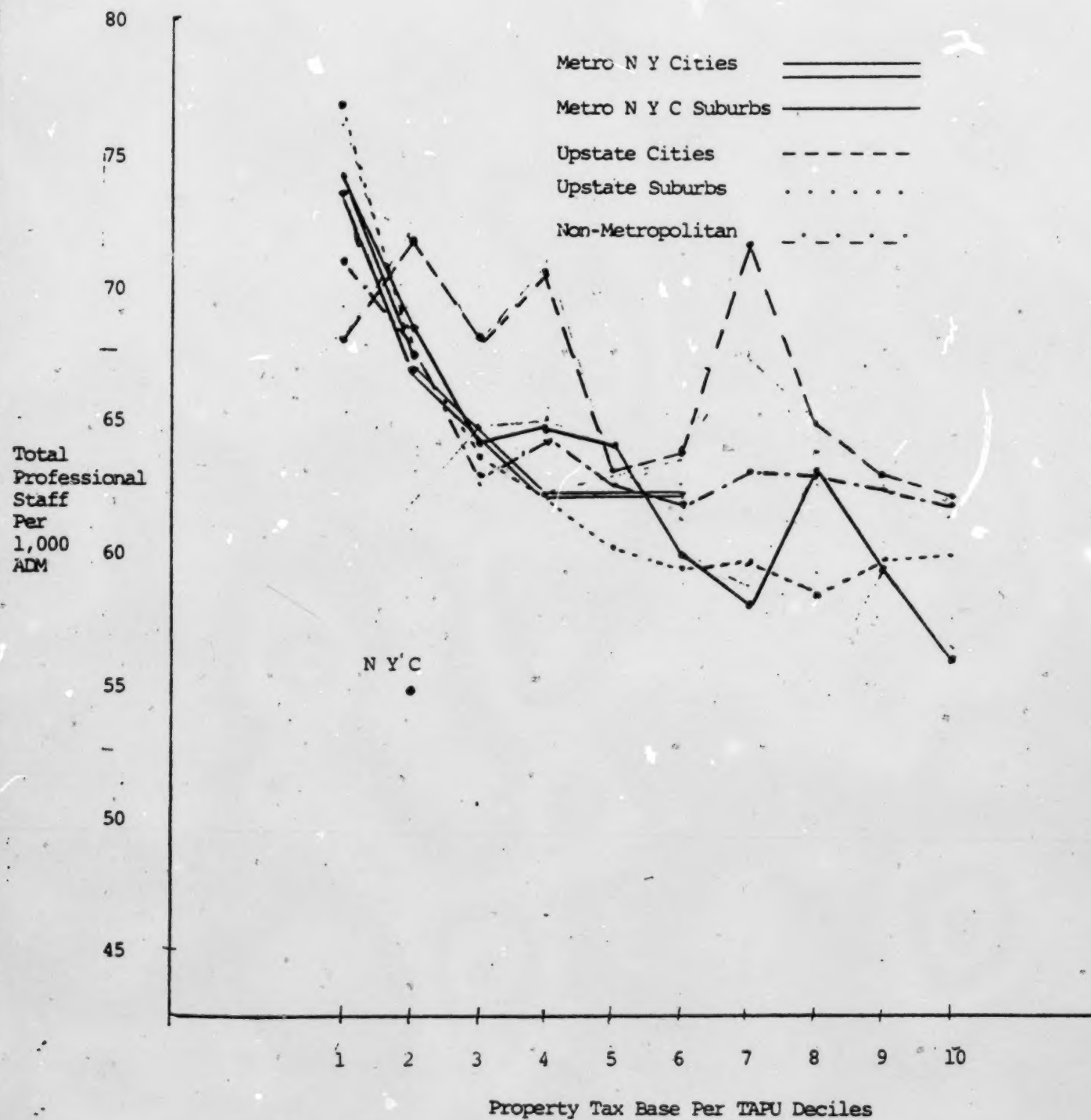


Table 7

Tax Rates, Approved Operating Expenditures
Per TAPU and Total Professional Staff
Per 1,000 ADM 1977-78 and Percent Change
Since 1975-76 [Staff Per 1,000 ADM]
or 1976-77 [Tax Rates and Expenditures]

Tax Rate 1977-78 (% change from 1976-77)
AOE Per TAPU 1977-78 (% change from 1976-77)
Staff/1,000 ADM 1977-78 (% change 1975-76)

Property Tax Base Per TAPU 1976-77	New York City	Metro- N.Y. Cities	Metro- N.Y. Suburbs	Upstate Cities	Upstate Suburbs	Non-Metro Areas
> \$ 86,191		19.00 - 5%	18.91 0%	14.00 8%	13.0 - 4%	11.88 - 8%
1		\$2709 1	\$2743 7	\$1968 - 1	\$2135 15	\$1900 3
		73.4 6	74.0 0	67.6 1	76.5 - 5	70.8 1
\$ 68,913 -		23.74 2%	31.56 2%	19.00 12%	15.94 - 5%	13.51 5%
2	86,191 \$2101	\$2249 7	\$2246 7	\$1825 2	\$1893 9	\$1646 5
	54.4 2	66.8 - 6	68.4 1	71.6 - 1	66.9 1	67.6 2
\$ 58,461 -			26.56 - 1%	21.50 8%	18.05 - 5%	14.00 - 1%
3	69,912		\$2236 5	\$2174 5	\$1890 10	\$1638 5
			63.9 1	68.1 - 2	63.7 0	63.1 0
\$ 52,067 -		28.00 0%	25.73 0%	18.66 - 7%	17.93 - 1%	15.10 0%
4	58,640	\$1866 - 1	\$2600 0	\$1691 6	\$1777 7	\$1621 7
		62.3 - 3	64.6 - 2	70.3 1	62.3 - 2	64.0 1
\$ 46,794 -			29.11 7%	17.61 4%	15.97 - 5%	13.56 - 5%
5	52,066		\$2239 8	\$1618 4	\$1640 5	\$1525 4
			63.0 - 1	63.1 - 1	60.1 0	62.4 - 2
\$ 42,654 -		27.00 -100%	26.96 1%	18.00 - 3%	17.00 -11%	14.73 - 1%
6	46,793	\$1893 - 3	\$1935 8	\$1744 9	\$1573 6	\$1480 5
		62.3 0	59.7 - 1	63.6 - 2	59.4 - 1	61.7 - 1
\$ 39,051 -			27.41 2%	18.50 6%	15.43 - 1%	14.31 - 4%
7	42,653		\$1832 1	\$1822 11	\$1523 8	\$1561 8
			58.0 - 2	71.4 3	59.6 1	62.9 - 1
\$ 35,323 -			31.00 3%	19.00 - 5%	15.04 - 3%	13.00 - 4%
8	39,050		\$2214 11	\$1533 6	\$1533 9	\$1486 8
			63.2 1	64.9 2	58.4 - 1	62.7 3
\$ 30,763 -			24.00 - 2%	16.51 3%	15.55 - 3%	13.32 - 6%
9	35,232		\$1955 7	\$1554 - 2	\$1523 8	\$1433 7
			59.1 2	63.2 1	58.6 0	62.4 0
< \$ 30,763			30.00 11%		13.80 - 7%	14.18 - 5%
10			\$1881 6	\$1348 7	1372 7	1415 5
			56.1 - 1	61.9 3	59.9 1	61.9 1

TABLE 8

Ten Groups of Districts With Lowest Total Professional Staff
Per 1,000 ADM and Ten Groups With Highest, 1977-78

Ten Lowest Ratios

<u>District Type</u>	<u>Decile</u>	<u>Staff Per 1,000 ADM</u>	<u>Ratio to State</u>
New York City	(2)	54.4	.85
Metro NY Suburbs	10	56.6	.89
Metro NY Suburbs	7	58.0	.91
Upstate Suburbs	8	58.4	.92
Metro NY Suburbs	9	59.1	.93
Upstate Suburbs	6	59.4	.93
Upstate Suburbs	9	59.6	.93
Upstate Suburbs	7	59.6	.93
Metro NY Suburbs	6	59.7	.94
Upstate Suburbs	10	59.9	.94

Ten Highest Ratios

<u>District Type</u>	<u>Decile</u>	<u>Staff Per 1,000 ADM</u>	<u>Ratio to State</u>
Upstate Suburbs	1	76.5	1.20
Metro NY Suburbs	1	74.0	1.16
Metro NY Cities	1	73.4	1.15
Upstate Cities	2	71.6	1.12
Non-Metropolitan	1	70.8	1.11
Upstate Cities	4	70.3	1.10
Metro NY Suburbs	2	68.4	1.07
Upstate Cities	3	68.1	1.07
Non-Metropolitan	2	67.6	1.06
Upstate Cities	1	67.6	1.06

total staff ratios and the one with highest. The ten lowest are all below 60 per 1,000 ADM and the ten highest are at 67.7 and above. Twenty-five of the 45, then, have ratios between 60 and 67.5. With the exception of New York City whose tax base per TAPU would place it at the level of the second wealthiest decile, the ten groups with the lowest ratios are all in the lowest wealth deciles 6-10 and they are located in suburban areas (four New York metropolitan and five upstate). Four of the five lowest are in the metropolitan New York City area and include 35.5 percent of the State's TAPU. The ten groups with the highest staff ratios are all in deciles 1-4 including all five district types in decile number 1 and four of the ten upstate city groups. The reader should be reminded, however, that city districts often have as many as 10 percent of their staff supported by federal funds intended to provide special services for target groups of pupils that supplement state and local resources. If, for example, upstate city groups 2 and 3 were lowered by six or seven staff per 1,000 ADM to reflect the roughly 10 percent of the staff who are federally funded in Albany and Rochester, the ratios for those districts would be very close to the State average.

Changes in staff ratios between 1975-76 and 1977-78 are presented in Table 9 with district groups included only if the percent change is at least two percent. Reductions in staff ratios occurred in moderate to high wealth districts though two of the three largest reductions were in metropolitan New York area city deciles 2 and 4 at six and three percent respectively. Decile number 2 of the metropolitan New York area cities includes Yonkers where a fiscal crisis similar to New York City's forced staff reductions during the 1975-76 to 1977-78 period. None of the ten groups with the lowest staff ratios (Table 8) reduced their ratios more than two percent. With the exception of the wealthiest New York area city group, the districts that improved their total staff ratios over the two-year period were predominately low-wealth plus New York City which began a gradual comeback following the crisis of 1975-76.

TABLE 9

Groups of Districts in Which the Total
Professional Staff Per 1,000 ADM Changed
By at Least Two Percent Between
1975-76 and 1977-78

Reductions in Staff Ratios

<u>District Type</u>	<u>Decile</u>	<u>Percent Decrease</u>
Metro NY Cities	2	- 6 %
Upstate Suburbs	1	- 5 **
Metro NY Cities	4	- 3
Metro NY Suburbs	7	- 2
Non-Metropolitan	5	- 2
Upstate Suburbs	4	- 2
Metro NY Suburbs	4	- 2 **
Upstate Cities	3	- 2
Upstate Suburbs	4	- 2

Increases in Staff Ratios

<u>District Type</u>	<u>Decile</u>	<u>Increase</u>
Metro NY Cities	1	6 %
Upstate Cities	7	3
Non-Metropolitan	8	3
Upstate Cities	10	3
Metro NY Suburbs	9	2 *
Upstate Cities	8	2
Non-Metropolitan	2	2 **
New York City	2	2 *

- * Among Lowest 10 Staff Ratios
* Among Highest 10 Staff Ratios

The remaining sections of this report address the distribution of broad groups of professional staff within the totals that have been discussed in this section. Specific attention also is given to changes in staffing patterns by district type and wealth, particularly where certain types of staff are increased while others are reduced.

Section 3

ADMINISTRATIVE STAFF

Administrative staffing patterns have been a subject of much concern to taxpayers for many years, but those concerns have become more pronounced during the recent period of enrollment declines. Citizens, often with the support of teacher organizations, contend that administrative positions are reduced more slowly than either teacher reductions or declines in students. Our analysis indicates that more than half of the groups of districts that we examined—groups that included almost six out of every ten pupils in New York state—had lower administrative staff ratios in 1977-78 than they did in 1975-76. In short, the general pattern in the State including New York City is that administrative staff have been reduced more rapidly than enrollment declines alone would dictate. In terms of the level of administrative resources, higher wealth districts and urban districts continue to have more administrative staff per each 1,000 pupils than other types of districts.

Table 10 and Figure 2 shows the weighted average staffing ratio for all administrators, and Table 11 both central office and building level administrators, by full valuation per TAPU and district type. The three highest wealth groups of districts (excluding New York City) are the only groups with administrative staff ratios above the rest-of-state average. However, the first decile districts with a ratio of 6.0 are the only ones markedly different from the average of 4.6. Since approximately four out of every five pupils in decile #1 are in Metropolitan New York suburban districts, the conclusion must be that the highest administrative staff ratios in the State are found in high wealth suburban New York districts. The next highest ratio is the third decile's 5.2 which is about 13 percent above the state average compared to the 9th decile's 4.0 which is 13 percent below. New York City and other downstate and upstate cities have above average administrative staff ratios as do New York suburban districts. Upstate suburban districts as a group have the lowest ratios. It must be noted here, that city school districts employ a number of persons whose salaries are paid out of the categorical state and federal program they are hired to administer. Unfortunately, the State Education Department's BEDS survey does not make it possible to classify administrators or other staff by source of funding, so that we cannot determine the extent to which higher administrative staff ratios in cities are explained by the higher concentrations of federal programs.

Similarly, suburban and non-metropolitan school districts have some administrative services in occupational and vocational education, special education, data processing and certain instructional support and special subject areas not included in these data because they are provided by BOCES.

Table 12 shows the groups of districts with the highest and lowest administrative staff ratios and Table 13 shows those with the greatest change between 1975-76 and 1977-78. Eight of the eleven groups of districts with the lowest administrative staff ratios are in low-wealth deciles 6-10, and the only city groups included are the lowest wealth upstate and metropolitan

New York cities. In contrast, none of the eleven groups with the highest ratios are in the top five wealth groups, and eight of the eleven are city

TABLE 10

Administrative Staff Per 1,000 ADM
1977-78 By Full Value Per TAPU
and District Type

<u>Decile</u>	<u>Full Value Per TAPU 1976-77</u>	<u>Administrative Staff Per 1,000 ADM</u>
1	> \$ 86,191	[6.0]
2	\$ 68,913 - 86,191	[5.0]
3	\$ 58,461 - 69,912	[5.2]
4	\$ 52,067 - 58,640	4.6
5	\$ 46,794 - 52,066	4.4
6	\$ 42,654 - 46,793	4.1
7	\$ 39,051 - 42,653	4.3
8	\$ 35,323 - 39,050	4.3
9	\$ 30,763 - 35,323	4.0
10	< \$ 30,763	4.1
	STATE AVERAGE	4.6
New York City		[5.4]
Metropolitan New York Cities		[5.1]
Metropolitan New York Suburbs		[4.9]
Upstate Cities		[5.4]
Upstate Suburbs		4.1
Non-metropolitan areas		4.2

[] Higher than state average

groups including New York City.

Five city groups are among the nine that had the greatest declines in administrative staff ratios (Table 13), including the lowest wealth upstate and metropolitan New York cities that had among the lowest staff ratios. The ten groups with the greatest improvements in administrative staff ratios over the two year period are a mixture of wealth characteristics, district types and high and low ratios. However, the two groups that improved their ratios the most are the highest wealth upstate and metropolitan New York cities that also happen to have the highest administrative staff ratios of all 45 groups.

Increases or declines in administrative staff ratios could be a function of the closing of school buildings, which we would assume to be related to the rate of decline. A building cannot be closed and a principal's position eliminated until enrollment drops sufficiently to permit the remaining pupils in the school to be transferred to another facility. The chart below show, however, that the rate of decline in TAPU from 1975-76 to 1977-78 for those groups with the greatest increases or decreases in ratios does not seem to be related to either type of change. High decline groups were

FIGURE 2

Administrative Staff Per 1,000 ADM
1977-78 By Full Value Per TAPU
and District Type

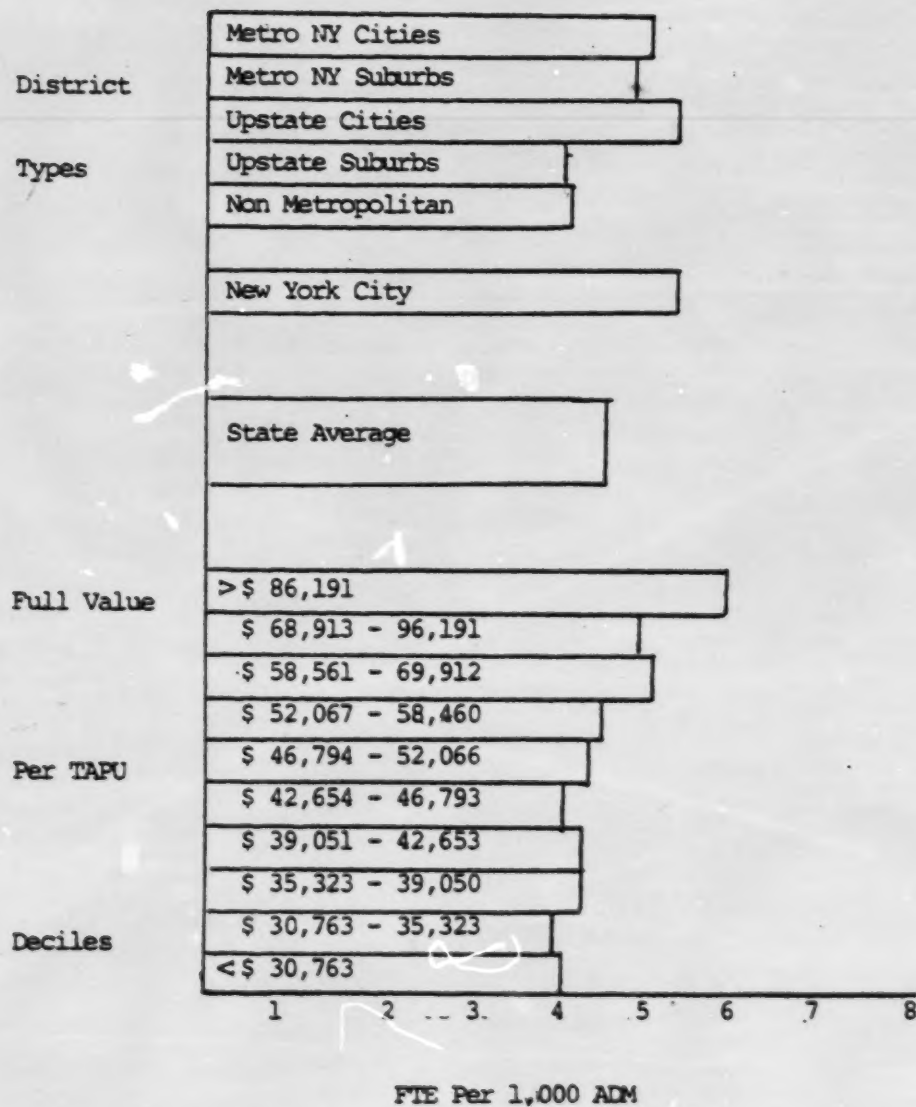


TABLE 11
Administrative Staff Per 1,000 ADM
1975 and 1977

Central Office 1977
Building Level 1977
Total Administration 1977

% Change 1975 to 1977
% Change 1975 to 1977
% Change 1975 to 1977

Property Tax Base Per TAPU	New York City	Metro- N.Y. Cities	Metro- N.Y. Suburbs	Upstate Cities	Upstate Suburbs	Non-Metro Areas
> \$ 86,191		1.9 90%	1.6 0%	2.1 110%	3.7 -28%	2.5 - 7%
1		4.7 --	4.5 0	3.0 7	.9 -59	2.5 8
		6.6 16	6.1 0	5.1 34	4.6 -38	5.0 0
\$ 68,913 -	1.6 1%	.9 -31%	1.2 9%	2.4 -20%	1.2 - 7%	1.4 - 6%
2 86,191	3.8 - 6	3.8 -14	4.0 - 2	4.5 -15	3.4 --	3.0 0
	5.4 - 5	4.7 -15	5.2 0	6.9 -17	4.6 - 2	4.4 - 2
\$ 58,461 -			1.0 11%	1.8 20%	.8 -11%	1.4 0%
3 69,912			3.8 - 5%	5.3 1%	4.3 10%	2.6 8
			4.8 -2	7.1 5%	5.1 6%	4.0 5%
\$ 52,067 -		.7 -36%	.9 0%	.9 -30%	1.1 - 8%	1.3 0%
4 58,640		3.8 9	3.8 - 5	4.0 2	3.3 --	3.2 3
		4.5 - 3%	4.7 - 4	4.9 - 5	4.4 - 2	4.5 2
\$ 46,794 -			.7 -27%	1.1 -21%	1.1 11%	1.6 --%
5 52,066			3.7 0	4.3 0	2.7 0	2.8 - 9
			4.4 - 8	5.4 - 5	3.8 5	4.4 - 6
\$ 42,654 -		.3 -63%	.8 -11%	1.1 10%	.9 0%	1.2 --%
6 46,793		3.7 -26	3.5 0	3.2 -13	3.0 - 6	2.9 3
		4.0 -31	4.3 - 2	4.3 - 9	3.9 - 4	4.1 2
\$ 39,051 -			.8 0%	1.4 - 7%	1.0 - 9%	1.3 8%
7 42,653			2.3 -11	4.2 2	2.9 11	2.8 12
			3.1 - 8	5.6 0	3.9 5	4.1 10
\$ 35,323 -			.8 33%	1.3 - 7%	.9 -10%	1.3 8%
8 39,050			3.9 - 9	3.9 5	2.9 3	2.8 7
			4.7 - 4	5.2 1	3.8 0	4.1 7
\$ 30,763 -			.8 11%	1.8 5%	1.1 22%	1.2 --%
9 35,323			3.1 - 3	2.7 - 7	2.9 - 6	2.7 8
			3.9 - 5	4.5 - 2	4.0 0	3.9 5
< \$ 30,763			.8 100%	.9 29%	1.3 - 7%	1.6 - 5%
10			3.7 - 5	2.7 -25	2.8 0	2.5 8
			4.5 4	3.6 -16	4.1 - 2	4.1 2

TABLE 12

Ten Groups With Highest Administrative
Staff Per 1,000 ADM and Ten With
Lowest 1977-78

Low Ratios

<u>District Type</u>	<u>Decile</u>	<u>Staff / 1,000 ADM</u>	<u>Ratio To Average</u>
Metro NY Suburbs	7	3.1	.67
Upstate Cities	10	3.6	.78
Upstate Suburbs	8	3.8	.83
Upstate Suburbs	5	3.8	.83
Metro NY Suburbs	9	3.9	.85
Non-Metropolitan	9	3.9	.85
Upstate Suburbs	7	3.9	.85
Upstate Suburbs	6	3.9	.85
Non-Metropolitan	3	4.0	.87
NY Area Cities	6	4.0	.87
Upstate Suburbs	9	4.0	.87
State Average *		4.6	1.00

Highest Ratios

<u>District Type</u>	<u>Decile</u>	<u>Staff / 1,000 ADM</u>	<u>Ratio To Average</u>
Upstate Cities	3	7.1	1.54
Upstate Cities	2	6.9	1.50
NY Area Cities	1	6.6	1.43
NY Suburbs	1	6.1	1.33
Upstate Cities	7	5.6	1.22
NY City	(2)	5.4	1.17
Upstate Cities	5	5.4	1.17
N' Suburbs	2	5.2	1.13
Upstate Cities	8	5.2	1.13
Upstate Cities	1	5.1	1.12
Upstate Suburbs	3	5.1	1.12
		4.6	1.00

* Excludes New York City

TABLE 13

Nine Groups With Greatest Reductions in Administrative Staff
Per 1,000 ADM Between 1975-76 and 1977-78 and
Ten Groups With Greatest Increases

District Type	Decile	Percent Reduction	District Type	Decile	Percent Reduction
Upstate Suburbs	1	- 38 %	Upstate Cities	1	34 %
NY Area Cities	6	- 31 *	NY Area Cities	1	16 **
Upstate Cities	2	- 17 **	Non-metropolitan	7	10
Upstate Cities	10	- 16 *	Non-metropolitan	8	7
NY Area Cities	2	- 15	Upstate Cities	4	6
Upstate Cities	6	- 9	New York Suburbs	2	5 **
Non-metropolitan	5	- 8	Non-metropolitan	2	5
New York Suburbs	5	- 7	Non-metropolitan	9	5 *
New York Suburbs	7	- 7 *	Upstate Suburbs	5	5 *
			Upstate Suburbs	7	5 *

* Among Lowest 10 Administrative Staff Ratios

** Among Highest 10 Administrative Staff Ratios

defined as the top ten of the 45 and low decline were the bottom ten. Of the ten groups whose administrative staff ratio declined the most, three were high decline groups and another three were low decline. Similarly, the rate of decline in TAPU is unrelated to the extent to which the staff ratio was increased.

Some recent research has reaffirmed the importance of the building principal in improving pupil performance on standardized achievement tests. To what extent, then, were building-level administrative staff ratios improved while reductions were made in central office staff. The answer is that districts seem to be as likely to improve the central office administrative staff ratio while decreasing the building-level ratio as they are to increase the ratio of principals to pupils at the expense of reductions in central office staff. Eleven groups of districts did the former over the two year period while another eleven did the latter. Six of the ten metropolitan groups improved both central office and building ratios and another three improved the building ratio. About half the suburban district groups reduced administrative ratios at both levels.

In sum, then, the highest administrative staff ratios are found in the highest wealth suburban New York group and urban districts, the lowest in upstate suburban and non-metropolitan groups. Improvements or reductions in ratios are unrelated to wealth, district type, or the rate of enrollment decline. Finally, districts seem to be as likely to improve the ratio of central office administrators to pupils as they are to improve the building principal ratio.

	High Increase In Administration Staff Ratio	Decline In Administration Staff Ratio
High Decline In TAPU	Metropolitan New York Cities 1**	Upstate Cities 10.* Upstate Cities 6 Metropolitan New York Suburbs 5
Low Decline In TAPU	Upstate Cities 1**	Upstate Suburbs 1 Upstate Cities 2** Non-Metropolitan 5

* Among Lowest 10 Ratios
 ** Among Highest 10 Ratios

SECTION 4

CLASSROOM, SUPPORT, AND SPECIAL SUBJECT STAFF RATIOS

This section is concerned with three types of professional staff: K-6 and 7-12 basic subject classroom teachers, instructional support staff, and special subject teachers. The principal findings regarding the patterns of staffing ratios in these areas are as follows:

- ° New York City's K-6, 7-12, support and special subject teacher staff ratios are all well below the average of the rest of the state, the ratios for other types of districts and the ratios for the lowest wealth groups of districts in the rest of the state. Indeed, New York City is the only one of the 45 categories or groups of districts examined in this study with a ratio in all four areas that ranks in the bottom ten.
- ° The two highest wealth deciles that include less than 15 percent of the TAPU in New York State enjoy higher professional staff ratios than other districts and New York City, though their advantages are less marked in support staff than in classroom and special subject teachers. Lower wealth groups of districts have less support staff than other more wealthy districts. The differences among wealth groups 3-10 are not substantial in the classroom and special subject teacher categories.
- ° The highest K-6 classroom teacher ratios are in the New York area cities and upstate non-metropolitan districts; the lowest in New York City and upstate suburbs. The highest 7-12 ratios are in New York suburban districts and city districts; the lowest in upstate suburbs and New York City.
- ° The lowest wealth New York area cities (decile 6) and suburban groups (deciles 9 and 10) have among the lowest staff ratios in classroom teachers and special subject teachers.
- ° Neither wealth nor district type are associated with reductions in staff ratios. The levels of staff ratios are not associated with reductions except with special subject teachers where several of the lowest ratio groups have had reductions while many higher ratio groups have enjoyed increases.
- ° Thirty-three of the 45 groups of districts improved the K-6 classroom teacher ratio between 1975-76 and 1977-78; 19 of the 33 increased the 7-12 ratio over the same period. Fourteen groups lowered both K-6 and 7-12 ratios. Only half the city groups improved the K-6 ratio and it was reduced in four groups.
- ° New York area cities in addition to New York City have relatively low staff ratios in both the support and special subject areas, while New York suburban districts are higher than the state

average in both areas. Upstate city districts are high in support staff and low in special subject teachers, while upstate suburban and non-metropolitan groups show a reverse pattern--low in support staff and high in special subject teachers.

K-6 and 7-12 Basic Subject Classroom Teachers

The professional staff included under the category Basic Subject Classroom Teachers have teaching assignments in the following areas:

K-6 common branch	industrial arts
English	combination subjects
social studies	humanities
science	health
math	business
foreign language	bilingual
home economics	other

Special subject teachers in art, music, performing arts, physical education, and driver education are not included in this area, nor are teachers of the handicapped. The staff ratio for K-6 is calculated by using K-6 average daily membership (ADM) and only the 7-12 ADM is used to calculate the 7-12 ratio.

Table 14 and Figures 3 and 4 show that in deciles 3-10 there is very little variation in the staff ratio for either K-6 or 7-12 basic subject classroom teachers. The wealthiest districts (decile 1) outside of New York City have a staff ratio 11 percent higher than the state average (excluding New York City) for both ratios, and the second decile districts are five percent higher in K-6 and four percent higher in 7-12. The K-6 ratio for the third decile is four percent below the state average and the sixth decile's 7-12 ratio is five percent below. The lowest wealth districts are very close to the state average in both K-6 and 7-12.

Only seven of the 45 groups of districts reduced the K-6 ratio and 21 cut back staff more than enrollments in grades 7-12. More than half (17 of 29) of these reductions were in the five highest wealth deciles. Suburban New York and upstate city districts had more reductions than other types of districts.

With the exception of New York City there also is very little variation in classroom staff ratios across district type (Figure 4). The K-6 ratio for New York City is 10 percent below the state average and the 7-12 is 18 percent below. Only the highest wealth cities in the metropolitan New York area (White Plains and Rye) at 1.10 are very much above the state average.

The connection between valuation per pupil and K-6 classroom ratios is more pronounced in city and suburban districts in the metropolitan New York area than upstate. Table 15 and Figure 5 show the substantial drop in staff ratios in the four groups that include New York area cities,

TABLE 14

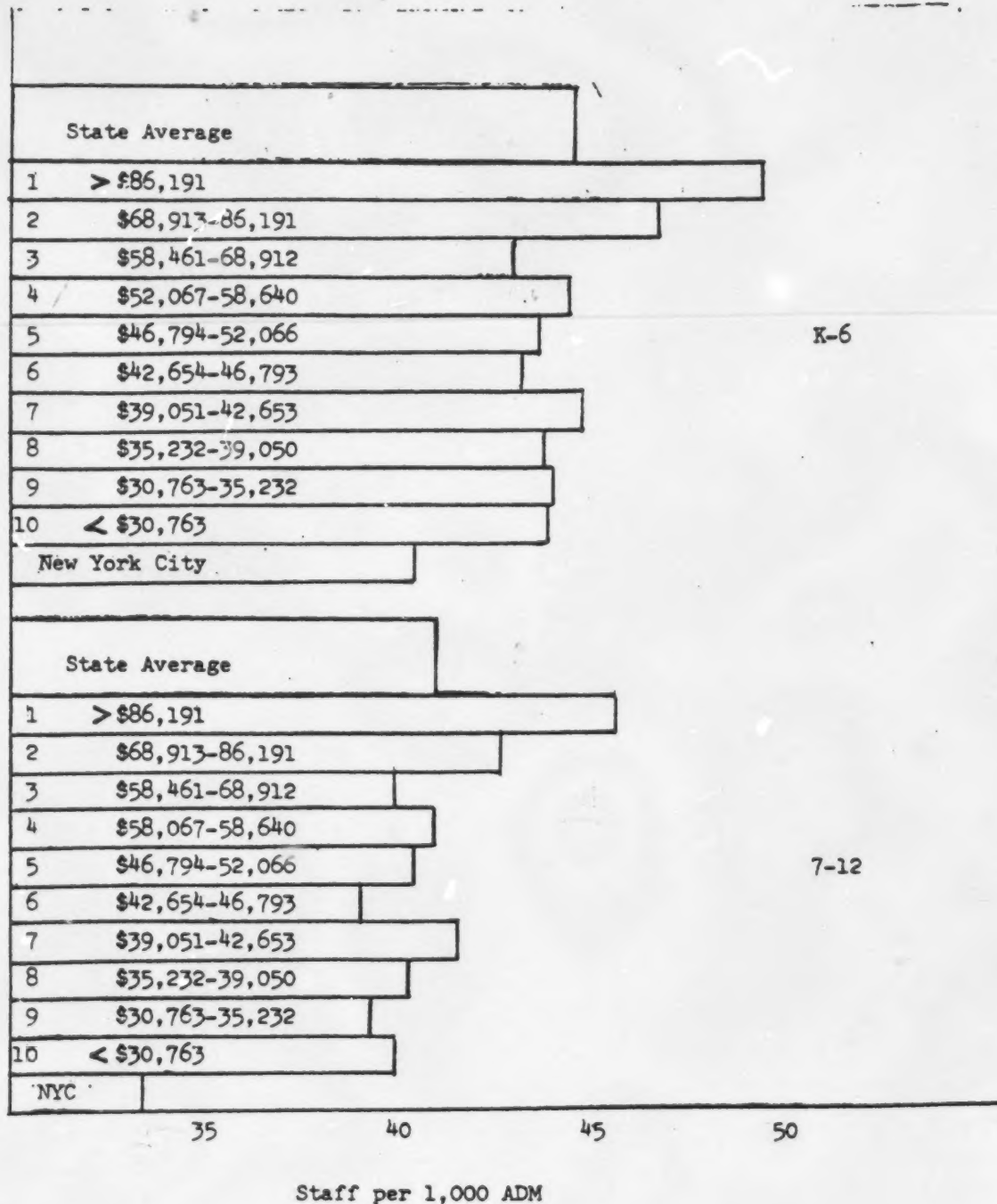
K-6 and 7-12 Basic Subject Classroom Teachers Per
1,000 K-6 and 7-12 ADM By Full Valuation Per TAPU
and District Type

Wealth Deciles	Group N	K-6			7-12		
		Staff Per 1,000 ADM	Ratio To State Average	Number Of Groups Reduced	Staff Per 1,000 ADM	Ratio To State Average	Number of Groups Reduced
1	5	[49.5]	1.11	1	[45.7]	1.11	3
2	5	[46.8]	1.05	1	[42.8]	1.04	2
3	4	43.0	.96	1	39.9	.97	2
4	4	44.5	1.00	1	40.9	1.00	5
5	4	43.6	.98	1	40.5	.99	0
6	5	43.2	.97	0	39.0	.95	4
7	4	[44.8]	1.00	1	[41.3]	1.01	2
8	4	43.9	.98	0	40.2	.99	1
9	4	44.0	.98	1	39.3	.96	1
10	4	43.9	.98	0	41.0	1.00	1
				7			21
Types	Cell N						
New York City	1	40.4	.90	0	33.5	.82	0
Metro NY Cities	5	[48.7]	1.10	2	[42.1]	1.03	2
Metro NY Suburbs	10	44.6	1.00	1	[42.3]	1.03	5
Upstate Cities	10	[44.8]	1.00	2	40.5	.99	6
Upstate Suburbs	10	43.5	.97	2	39.9	.97	4
Non-Metropolitan	0	[45.9]	1.03	0	40.5	.99	4
				7			21
State Average		44.7	1.00		41.0	1.00	

[] Above the State Average

FIGURE 3

K-6 and 7-12 Basic Subject Classroom Teachers per 1,000
per K-6 and 7-12 ADM by Full Valuation per TAPU



K-6 and 7-12 Basic Subject Classroom Teachers per 1,000
per K-6 and 7-12 ADM by District Type
(Percent of State TAPU)

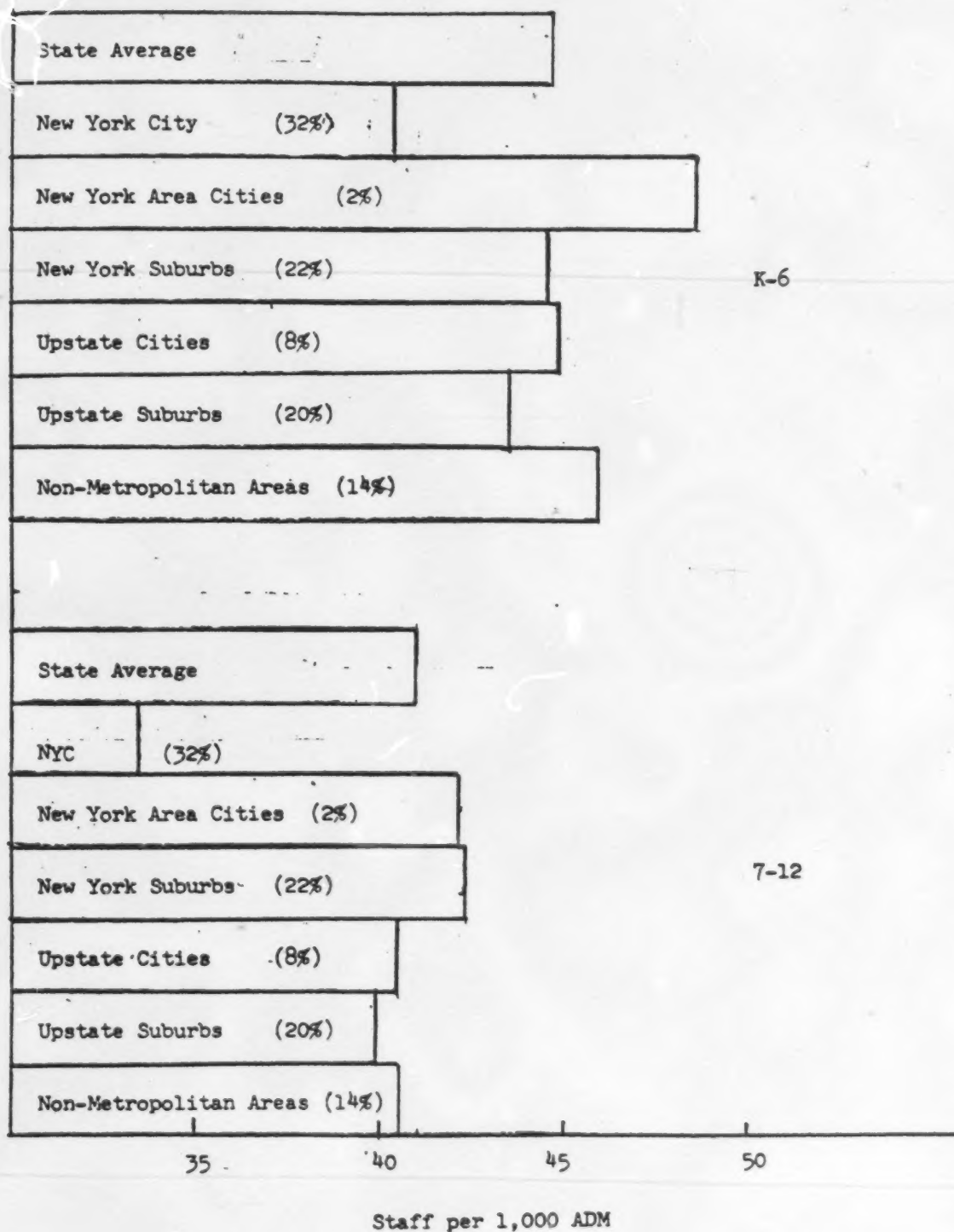


TABLE 15

K-6 Basic Subject Classroom Teachers Per 1,000 K-6 ADM, 7-12 Basic Subject Per 7-12 ADM, Support Staff and Special Subject Teachers Per K-12 ADM 1977-78 and Percent Change 1975-76 to 1977-78 By Tax Base Per TAPU 1976-77 and District Type

Property Tax Base Per TAPU 1976-1977	New York City	Metro- N.Y. Cities	Metro- N.Y. Suburbs	Upstate Cities	Upstate Suburbs	Non-Metro Areas
> \$ 86,191	K-6 7-12 Support Special Subject	52.4 11% 38.9 0 4.5 7 9.6 5	49.2 1% 46.2 -1 4.4 2 9.2 0	52.1 11% 38.6 -4 4.1 -15 8.5 8	50.1 -2% 56.3 0 3.2 39 11.4 3	49.7 5% 45.6 -1 2.9 4 9.4 2
\$ 68,913 - 2 86,191	40.4 12% 33.5 2 1.6 50 5.4 0	47.2 -4% 41.5 -7 3.4 -15 5.7 -17	45.7 3% 42.9 2 4.1 0 8.4 2	43.8 11% 45.0 -6 4.9 9 7.6 12	45.4 4% 43.0 1 3.3 -8 8.5 -2	48.4 2% 44.0 2 2.7 17 9.0 -1
\$ 58,461 - 3 68,912			42.4 1% 39.1 -3 3.5 -3 7.2 0	40.5 -4% 38.9 -1 3.6 -8 6.0 3	44.1 2% 41.2 3 3.2 -6 8.0 -1	44.8 2% 40.2 2 3.5 3 8.2 3
\$ 52,067 - 4 58,640		44.4 -3% 41.4 -1 4.3 -7 5.2 -4	43.2 2% 42.2 -2 3.7 0 7.8 -7	49.1 4% 40.0 -3 4.4 0 6.9 8	43.5 1% 39.9 -1 3.2 -3 8.0 -5	46.0 3% 40.1 -2 3.0 3 7.9 4
\$ 46,794 - 5 52,066			44.2 -1% 41.8 1 3.5 0 8.1 1	43.1 0% 37.9 0 2.7 -7 5.6 -3	43.5 4% 39.6 1 2.6 -4 7.8 -1	43.8 3% 42.3 1 2.5 -7 7.8 -5
\$ 42,654 - 6 46,793		41.9 5% 36.7 9 3.5 -5 6.2 0	41.1 0% 38.8 -2 2.9 -3 7.5 -1	44.7 0% 38.7 -3 2.7 -16 6.8 -6	43.1 2% 38.9 -2 2.6 -4 7.0 -4	44.6 2% 39.6 -1 2.5 -7 7.8 3
\$ 39,051 - 7 42,653			41.2 0% 41.6 3 2.7 -10 7.0 -3	48.1 3% 43.5 1 3.4 -6 6.8 1	42.4 -2 40.1 -1 2.5 -8 7.4 0	46.3 2% 39.6 -2 2.8 -15 8.1 1
\$ 35,232 - 8 39,050			43.3 4% 41.9 3 3.6 0 7.7 -3	43.6 0% 39.9 0 3.8 11 7.3 -5	42.1 1% 39.0 -1 2.2 -4 7.4 0	46.9 6% 40.6 2 2.3 0 7.8 3
\$ 30,763 - 9 35,232			40.2 2% 39.2 0 2.9 4 6.7 -3	46.1 -2% 35.1 -2 3.5 -5 7.0 3	44.1 5% 39.5 0 2.4 0 7.6 -1	45.6 3% 39.3 0 2.4 0 7.7 -4
< \$ 30,763 10			37.1 5% 36.6 -5 3.0 -17 5.8 -8	42.3 5% 42.8 1 2.9 32 8.2 6	43.5 4% 40.1 0 2.2 -4 7.6 0	46.0 4% 39.9 1 2.2 -8 7.7 0

Support Staff: Attendance teachers, social workers, psychologists, counselors, nurse teachers and other medical personnel

Special Subject Teachers: Performing arts, art, music, physical education and driving

FIGURE 5

K-6 Basic Subject Classroom Teachers
Per 1,000 K-6 ADM 1977-78 By District
Type and Tax Base Per TAPU 1976-77

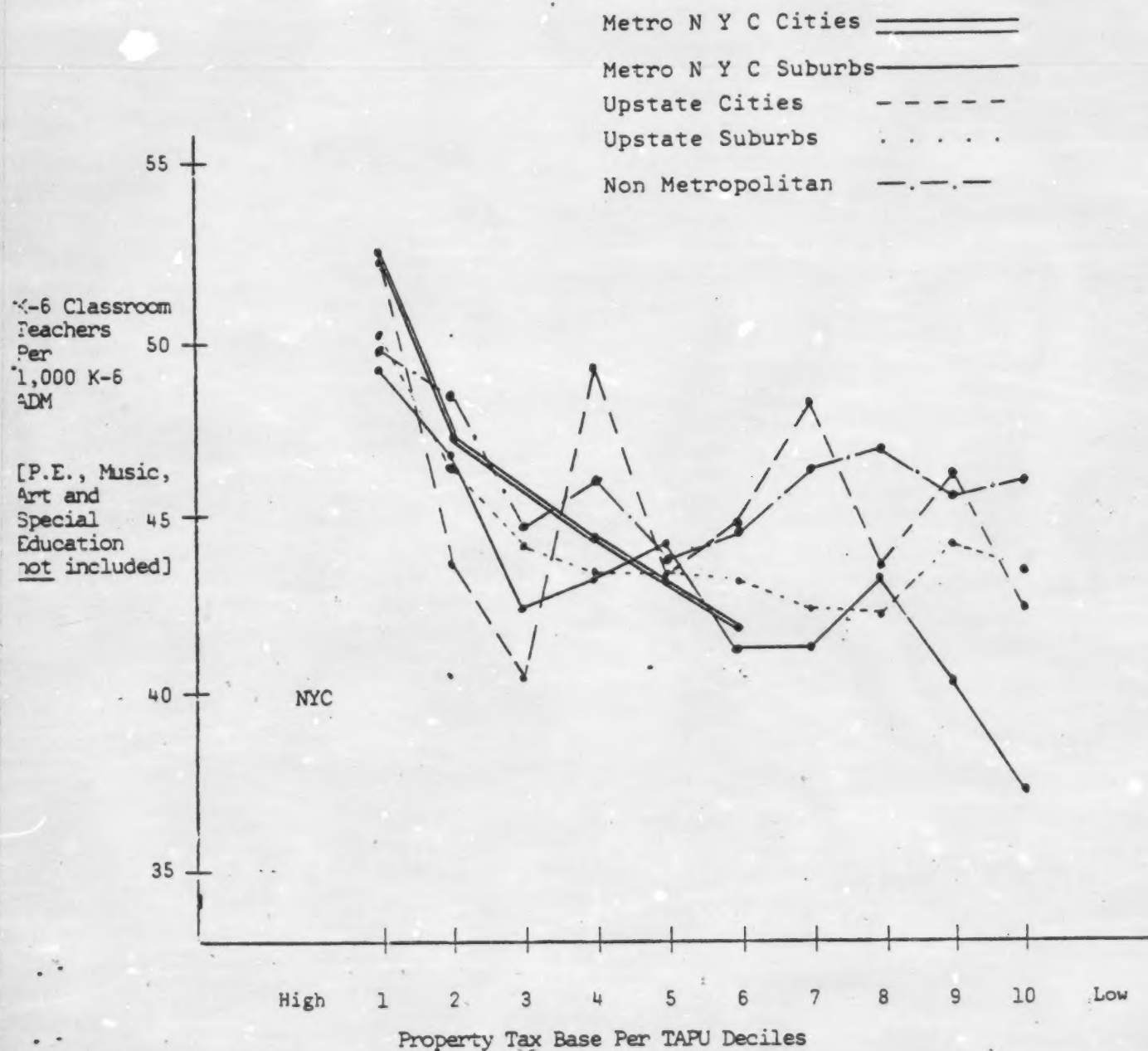


TABLE 16

K-6 Basic Subject Classroom Teachers:
Ten Lowest and Ten Highest Staff Ratios 1977-78

Ten Lowest Groups				Ten Highest Groups			
District		Staff /	Ratio To	District		Staff /	Ratio To
Type	Decile	1,000 ADM	Average	Type	Decile	1,000 ADM	Average
New York Suburbs	10	37.1	.83	New York Cities	1	52.4	1.17
New York Suburbs	9	40.2	.90	Upstate Cities	1	52.1	1.17
New York City	(2)	40.4	.90	Upstate Suburbs	1	50.1	1.12
New York Suburbs	6	41.1	.92	Non-Metropolitan	1	49.7	1.11
New York Suburbs	7	41.12	.92	New York Suburbs	1	49.2	1.10
New York Cities	6	41.9	.94	Upstate Cities	4	49.1	1.10
Upstate Suburbs	8	42.1	.94	Non-Metropolitan	2	48.4	1.08
Upstate Cities	10	42.3	.95	Upstate Cities	7	48.1	1.08
Upstate Suburbs	7	42.4	.95	New York Cities	2	47.2	1.06
New York Suburbs	3	42.4	.95	New York Suburbs	2	46.7	1.04
State Average		41.9	1.00			44.7	1.00

and the difference between the two wealthiest and the two poorest deciles in New York suburban districts. Indeed, with the one exception of decile eight, New York area districts in deciles 5-10 and New York City have the lowest K-6 staff ratios of all 45 groups of districts. This occurs in spite of the fact that per pupil expenditures and tax rates for these districts are substantially higher than in upstate districts with comparable full value per pupil.

Table 16 ranks the ten groups of districts with the lowest staff ratios in K-6 and the ten with the highest. Seven of the ten lowest are in the New York City area; New York City itself, five suburban groups (deciles 10, 9, 6, 7, and 3) and the lowest wealth city in the area (Peekskill in decile 6). The lowest wealth New York suburban group has a staff ratio only 93 percent of the staff average. In contrast, the ten groups with the highest staff ratios illustrate the importance of a high tax base per pupil. The ten highest include all five wealthiest groups and three of the five groups in the second decile.

Whether districts increased or reduced their K-6 classroom ratios between 1975-76 and 1977-78 does not seem to be related to property wealth or whether the group has a high or low staff ratio. Table 17 shows the seven groups that reduced the K-6 ratio and the ten that had the greatest improvements in the ratio. Both high and low ratio groups increased and reduced staff resources, though city districts seem to have been the most active. There are 15 city groups of districts in this analysis, and five of the seven reducing groups were cities along with six of the ten groups that improved their ratios.

TABLE 17.

K-6 Basic Subject Classroom Teachers:
Greatest Percentage Change in
Staff Ratio 1975-76 to 1977-78

Percentage Reduction				Percentage Gain			
District Type	Decile	Percentage Change		District Type	Decile	Percentage Change	
New York Cities	2	-	4 %	New York City	(2)	12	%
Upstate Cities	3	-	4	New York Cities	1	11	**
New York Cities	4	-	3	Upstate Cities	1	11	**
Upstate Suburbs	1	-	2 **	Upstate Cities	2	11	
Upstate Suburbs	7	-	2 *	Non-metropolitan	8	6	
Upstate Cities	9	-	2	Non-metropolitan	1	5	
New York Suburbs	5	-	1	New York Cities	6	5	
				Upstate Suburbs	9	5	
				New York Suburbs	10	5	*
				Upstate Cities	10	5	*

* Among 10 Lowest Staff Ratios

** Among 10 Highest Staff Ratios

Between 1975-76 and 1977-78 many New York State school districts were able to take advantage of enrollment declines by increasing the K-6 staff ratios somewhat which has the effect of lowering class size. This

was accomplished by reducing elementary classroom teachers more slowly than enrollment declines. Thirty-three of the 45 groups improved the K-6 classroom teacher ratio.

There seems to have been a conscious decision to lower class size in the elementary grades at the expense of class size in grades 7-12. Nineteen of the 45 groups improved their K-6 staff ratio while lowering or holding constant the 7-12 ratio. Another 14 including New York City improved both ratios while the staff ratios in five groups were reduced at both K-6 and 7-12 levels. Increasing the K-6 classroom teacher ratios unrelated to differences in full valuation per pupil, but district type seems to make a difference. All ten non-metropolitan groups, eight of ten upstate suburban groups and seven of ten New York area suburban groups improved their K-6 staff ratio, four actually reduced staff resources slightly and two had ratios that were identical for both years.

The presumption here, of course, is that most districts made a conscious policy decision to reduce K-6 class size by cutting back teaching positions more slowly than elementary level enrollment declines. In the non-metropolitan districts where the average district has about 1500 TAPU, reductions in the K-6 classroom teacher ratio may have been more a function of economies of scale than policy decisions. In many non-metropolitan districts there are only 2-5 classroom teachers at each grade level, often in more than one school building. In such situations a substantial drop in enrollment must occur before a teaching position can be eliminated.

Support Staff and Special Subject Teachers

Instructional support staff include psychologists, social workers, attendance teachers, guidance counselors, health personnel and special education supervisors. Special subject teachers are in performing arts, art, music, physical education and driver education. Teachers of the handicapped have not been counted in either of these two categories or in the classroom teacher category.

The availability of support staff is associated with differences in full valuation per pupil for districts other than New York City. Table 18 shows that the four highest deciles have support staff ratios above the state average and the other six are below the average with the lowest ratios in deciles 9 and 10. Nine of the ten groups in deciles 6 and 7 reduced staff ratios in the support area between 1975-76 and 1977-78. Decile 1, the wealthiest districts, had 35 percent more support staff than the state average and the ratio in only one of the five district types in this decile was reduced over the two year period. White Plains, Rye Neck, and Oswego are the only cities in the wealthiest decile.

The differences in support staff ratios among district types range from 1.6 per 1,000 ADM in New York City to 3.7 in New York suburban districts, a 230 percent difference. New York City's ratio is half the average of the rest of the State and the other New York area cities are 58 percent of the average. The expectation that support staff ratios would be higher in city districts in response to the greater concentrations of high-need pupils is not supported by this finding, probably a result of the fiscal crisis in New York City and Yonkers.

TABLE 18

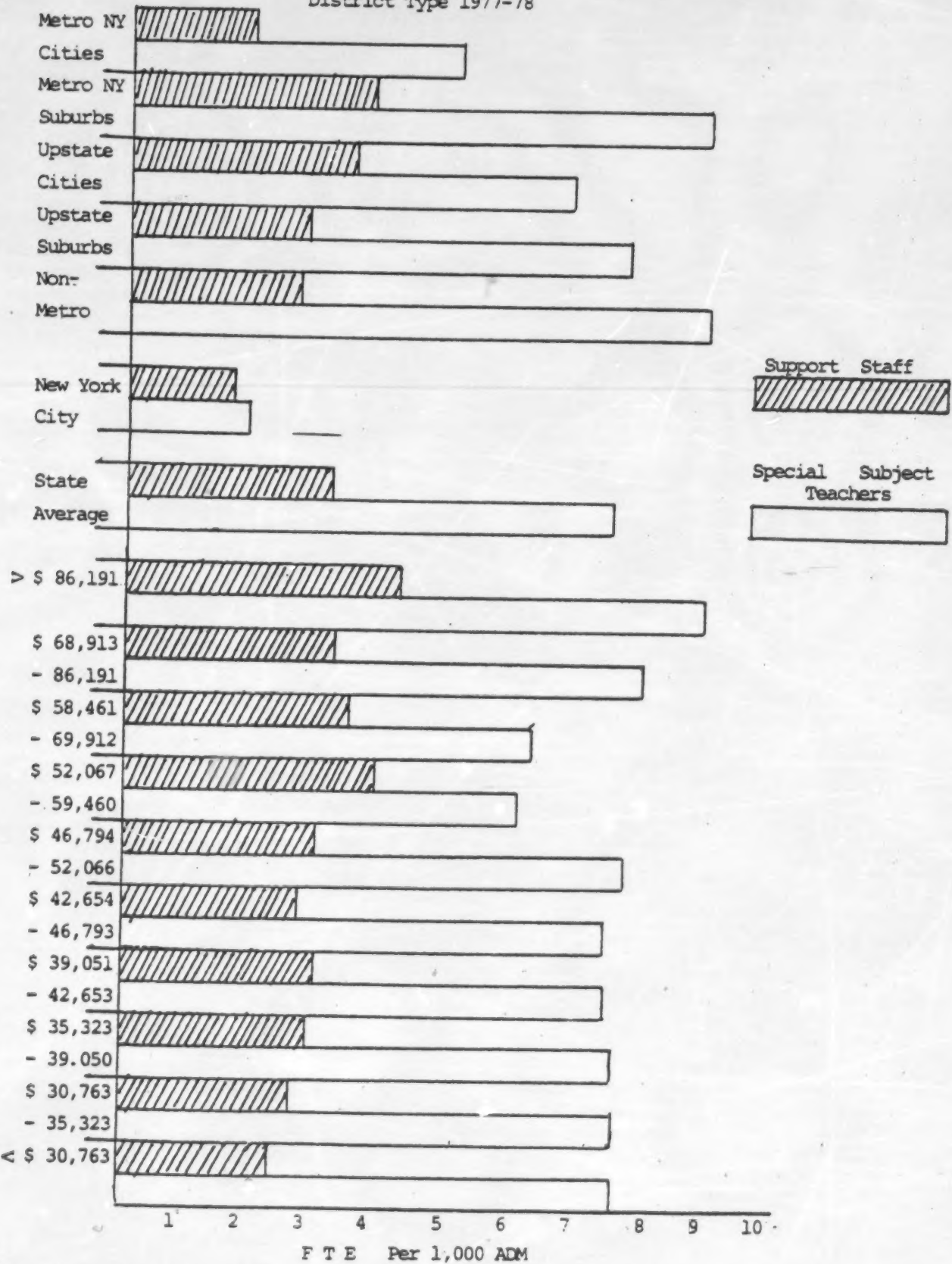
Support Staff and Special Subject Teacher
Ratios By Wealth and District Type 1977-78

Deciles	N	Staff / 1,000 ADM	Ratio To State Average	Number Groups Reduced 1975-76 To 1977-78	Staff / 1,000 ADM	Ratio To State Average	Number Groups Reduced 1975-76 To 1977-78
1	5	[4.2]	1.35	1	[8.8]	1.19	0
2	5	[3.2]	1.03	2	[7.9]	1.07	3
3	4	[3.4]	1.10	3	6.2	.84	1
4	5	[3.8]	1.23	2	2.0	.81	3
5	4	2.9	.94	3	[7.6]	1.03	3
6	5	2.7	.87	5	7.3	.99	3
7	4	2.9	.94	4	7.3	.99	1
8	4	2.8	.90	1	[7.5]	1.01	2
9	4	2.6	.81	1	[7.5]	1.01	3
10	4	2.3	.74	3	[7.5]	1.01	1
<u>Types</u>							
New York City	1	1.6	.52	1	3.4	.46	0
Metro NY Cities	5	1.8	.58	3	5.0	.66	2
Metro NY Suburbs	10	[3.7]	1.19	4	[8.8]	1.19	6
Upstate Cities	10	[3.4]	1.10	6	6.7	.91	3
Upstate Suburbs	10	2.7	.87	8	[7.6]	1.03	6
Non-Metropolitan	10	2.6	.84	4	[8.8]	1.19	3
Totals	49			25			20
State Average		3.1			7.4		

[] Above the State Average

FIGURE 6

Support Staff and Special Subject Teachers By Wealth and District Type 1977-78



The high support staff ratio of 3.4 per 1,000 ADM in upstate cities operating under constraints imposed by the Hurd decision less severe than the crises in Yonkers and New York City is consistent with expectations. The highest ratio, however, is the 3.7 in New York suburban districts, a finding consistent with the high preference image of Westchester and Nassau counties. We would expect to find in a more detailed analysis that the high upstate city ratio is produced by higher than average use of attendance teachers, psychologists and social workers while the suburban figure results from higher counselor ratios. Six of the ten upstate city groups, three of five New York area city groups and eight of 10 upstate suburban groups reduced their support staff ratios between 1975-76 and 1977-78.

The major variation in special subject teacher ratios in terms of wealth is between the top two deciles that again have the highest ratios at 19 and seven percent above the average and decile 3 that is 16 percent below the average. The five lowest deciles are either slightly above or just below the average, but well above deciles 3 and 4. In addition, while 20 of the 45 groups reduced staffing in the special subject area, those reductions were as likely to occur in high-wealth as in low-wealth groups, though none occurred in the wealthiest decile.

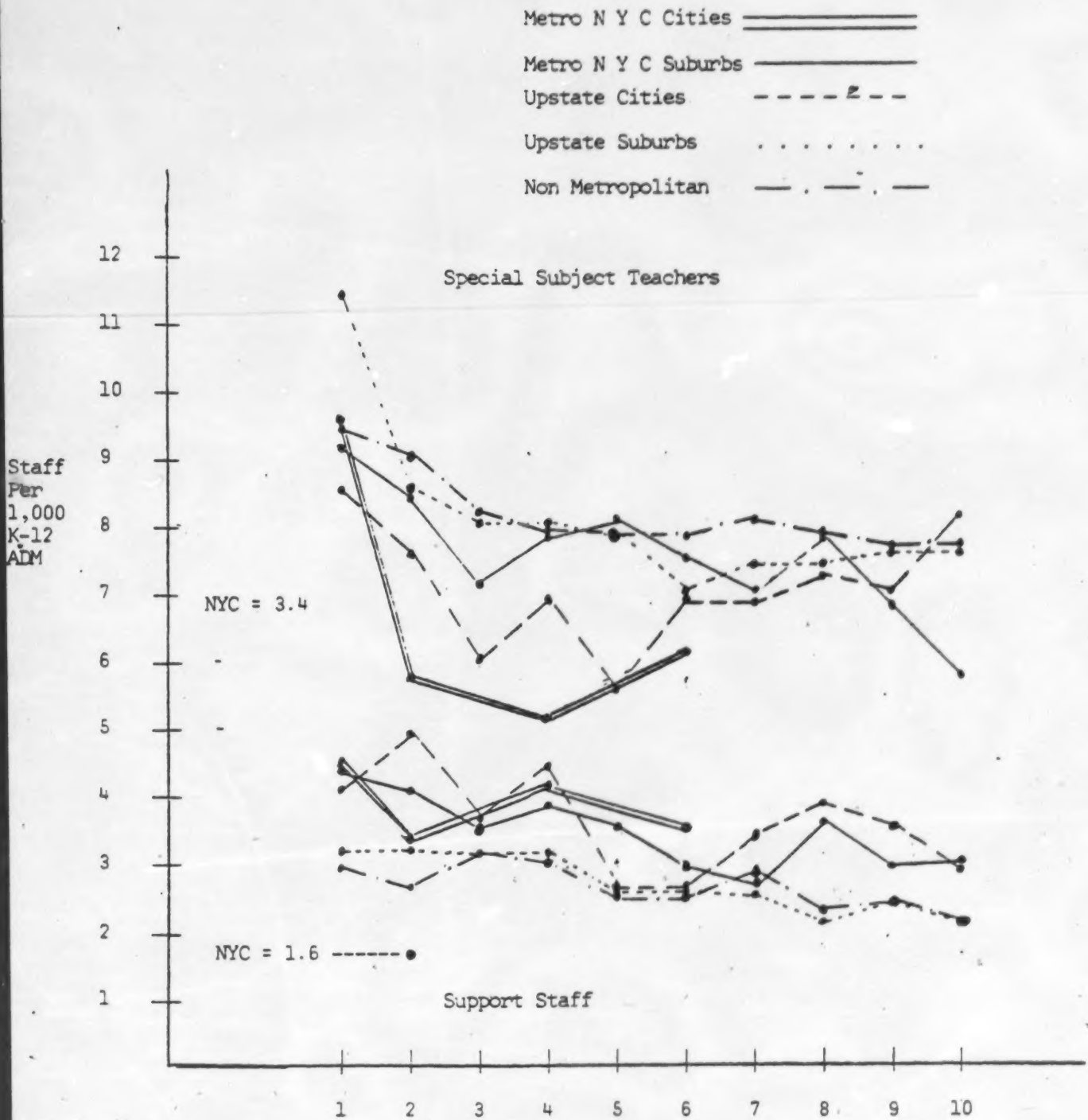
The difference in the availability of special subject teachers among the six district types is more dramatic than the support staff or classroom teacher ratios. New York City's special subject teacher ratio is less than half of the average of the rest of the State and the ratio for the other New York area cities is two-thirds the state average. In contrast, both the New York suburban and non-metropolitan districts are almost 20 percent above the average. Six of both the ten New York suburban and the ten upstate suburban groups, the latter just above the state average, reduced special subject teacher ratios over the two year period.

The contrast in upstate New York between the availability of support staff and special subject teachers confirms general expectations. The cities are 10 percent above the average support staff ratio and nine percent below average in special subject teachers, while suburban and non-metropolitan groups are 13 to 16 percent below in support staff and three to 19 percent above in the use of special subject teachers. One interpretation for these patterns is that the cities need the additional support staff to service the greater concentration of high-need pupils, and therefore cannot afford to provide special subject teachers in music, art, and physical education to match state norms. In suburban and non-metropolitan districts the need for support staff is not as great as in the cities, so they can afford to provide special subject services at a level greater than state norms. In the case of small non-metropolitan districts, however, lower support staff ratios may be partly a function of services provided by BOCES and therefore not included in our data. The higher than average special subject teacher ratios also may be a result of the same economy of scale problems that probably affect K-6 and 7-12 classroom teacher ratios in non-metropolitan districts. Such explanations of the differences among district types in support and special subject staff ratios are, in fact, only speculations that they cannot be answered by our analysis.

Similar speculations can be offered to explain the patterns of support and special subject teacher ratios in the metropolitan New York area. The

FIGURE 7

Special Subject Teachers and Support
Staff Per 1,000 K-12 ADM 1977-78
By Tax Base Per TAPU 1976-77
and District Type



high ratios in both staff areas in suburban New York districts may well be a function of a long history of voter preferences for such services established during the late 1950's and 1960's. In contrast, the fiscal cirses seem to have taken their toll on the downstate cities in terms of staffing for both areas.

Figure 7 and Tables 19 and 20 show the support and special subject patterns by individual wealth and district type groups. The lowest level of support staff are in New York City and low-wealth upstate suburban and non-metropolitan groups. The highest ratios, many 20 to 50 percent above the state average, are in higher wealth cities and New York suburban groups, plus eighth decile upstate city and New York suburban groups.⁵

The lowest special subject ratios are in moderate wealth cities and the two lowest wealth New York suburban groups plus New York City. Eight of the ten highest wealth groups are among the ten highest special subject staff ratio groups—only the two city groups are not included.

Tables 21 and 22 rank the ten groups with the largest reductions in support and special subject staff between 1975-76 and 1977-78 and the ten with the largest increases. Twenty-six of the 45 groups reduced support staff over the two year period, the largest number of reductions of all classes of staff examined in this study. The ten with the largest reductions in support staff ratios include both high and low wealth districts. However, five of the ten are city groups and two are in the New York suburban area. Three of the top ten groups reducing the support staff ratio had ratios below the state average and two were among the lowest ten of the 45 groups, while two were in the highest ten. Four of the ten groups that improved the support staff ratio already were among the highest in the state.

Twenty of 45 groups reduced the level of special subject staff resources and 16 increased the ratios. Four of the nine with the largest reductions also were among the ten with the lowest ratios. Twelve groups had increases greater than three percent and six of these were also among the highest ten ratios of the 45 groups. Thus, in special subject teaching staffing ratios those groups of districts already relatively well off have strengthened their position while several of the groups well below the state norm are falling further behind. Neither property wealth per pupil nor district type seem to be associated with increasing or reducing the special subject ratio, though city districts are represented in both groups somewhat out of proportion to their total.

⁵ Decile 8 upstate cities include Elmira, North Tonawanda, Troy, and Utica.

Table 19

Ten Groups With Lowest Support Staff Ratios and
Ten With the Highest, 1977-78

<u>District Type</u>	<u>Decile</u>	<u>Staff / 1,000 ADM</u>	<u>Ratio to Average</u>	<u>District Type</u>	<u>Decile</u>	<u>Staff / 1,000 ADM</u>	<u>Ratio to Average</u>
New York City	(2)	1.6	.52	Upstate Cities	2	4.9	1.58
Upstate Suburban	8	2.2	.71	N Y C Cities	1	4.5	1.45
Non-metropolitan	10	2.2	.71	New York Suburban	1	4.4	1.42
Upstate Suburban	10	2.2	.71	Upstate Cities	4	4.4	1.42
Non-metropolitan	8	2.3	.74	N Y C Cities	4	4.3	1.39
Upstate Suburban	9	2.4	.77	Upstate Cities	1	4.1	1.32
Non-metropolitan	9	2.4	.77	Upstate Cities	8	3.8	1.23
Upstate Suburban	7	2.5	.81	New York Suburban	4	3.7	1.19
Non-metropolitan	6	2.5	.81	Upstate Cities	3	3.6	1.16
Non-metropolitan	5	2.5	.81	New York Suburban	8	3.6	1.16
State Average		3.1	1.00			3.1	1.00

Table 20

Ten Groups With the Lowest Special Subject
Teacher Ratios and Ten With the Lowest 1977-78

<u>District Type</u>	<u>Decile</u>	<u>Staff / 1000 ADM</u>	<u>Ratio to Average</u>	<u>District Type</u>	<u>Decile</u>	<u>Staff / 1000 ADM</u>	<u>Ratio to Average</u>
New York City	(2)	3.4	.46	Upstate Suburban	1	11.4	1.54
N Y C Cities	4	5.2	.71	N Y C Cities	1	9.6	1.30
Upstate Cities	5	5.6	.76	Non-metropolitan	1	9.4	1.27
N Y C Cities	2	5.7	.77	New York Suburban	1	9.2	1.24
New York Suburban	10	5.8	.78	Non-metropolitan	2	9.0	1.22
Upstate Cities	3	6.0	.81	Upstate Cities	1	8.5	1.15
N Y C Cities	6	6.2	.84	Upstate Suburban	2	8.5	1.15
New York Suburban	9	6.7	.91	New York Suburban	2	8.4	1.14
Upstate Cities	6	6.8	.92	Non-metropolitan	3	8.2	1.11
Upstate Cities	7	6.8	.92	Upstate Cities	10	8.2	1.11
State Average		7.4				7.4	

Table 21

Ten Groups With the Greatest Reductions
in Support Staff Ratios 1975-76 to 1977-78

Cells With Greatest Reductions in Staff Ratios

<u>District Type</u>	<u>Decile</u>	<u>% Change</u>
New York City	(2)	- 30 %
New York Suburban	10	- 17
Upstate Cities	6	- 16
Non-metropolitan	7	- 15
Upstate Cities	1	- 15 **
New York Suburban	7	- 10
Non-metropolitan	10	- 8 *
Upstate Suburban	7	- 8 *
Upstate Cities	3	- 8 *
Upstate Suburbs	2	- 8

Total Cells Reducing Staff Ratio = 26 of 49

::::

* Among 10 lowest ratios

** Among 10 highest ratios

Cells With Greatest Gains in Staff Ratios

<u>District Type</u>	<u>Decile</u>	<u>% Change</u>
Upstate Suburban	1	39 %
Upstate Cities	10	32
Non-metropolitan	2	17
Upstate Cities	8	11 **
Upstate Cities	2	9 **
N Y C Cities	1	7 **
Non-metropolitan	1	4
New York Suburban	9	4 **
Non-metropolitan	4	3
Non-metropolitan	3	3

Total Cells Increasing Staff Ratio = 10 of 49

Table 22

Nine Groups With the Greatest Reductions
in Special Subject Teacher Ratios 1975-76
to 1977-78 and Ten With the Greatest Gains

Cells With Greatest Reductions In Staff Ratios

<u>District Type</u>	<u>Decile</u>	<u>% Change</u>
N Y C Cities	2	- 17 %*
New York Suburban	10	- 8 *
New York Suburban	4	- 7
Upstate Cities	6	- 6 *
Upstate Cities	8 -	
Non-metropolitan	5 - -	- 5
Upstate suburban	4 - -	
N Y C Cities	4 - -	- 4*
Non-metropolitan	9 - -	

Total Cells Reducing Staff Ratio = 20 of 49

* Among 10 lowest ratios

** Among 10 highest ratios

Cells With Greatest Gains In Staff Ratio

<u>District Type</u>	<u>Decile</u>	<u>% Change</u>
Upstate Cities	2	12 %
Upstate Cities	1 -	8 **
Upstate Suburbs	4 - -	**
Upstate Cities	10	6 **
N Y C Cities	1	5 **
Non-metropolitan	4	4
Upstate Suburban	1 -	**
Upstate Cities	3 -	*
Non-metropolitan	3 - -	3 **
Non-metropolitan	6 -	
Non-metropolitan	8 -	
Upstate Cities	9 -	

Total Cells Increasing Staff Ratio = 16 of 49

Appendix A

DISTRIBUTION OF TAPU 1976-77 AMONG SCHOOL
DISTRICTS BY WEALTH AND DISTRICT TYPEPercent of State
(Percent of Decile)

	New York City	Metro New York Cities	Metro New York Suburbs	Upstate Cities	Upstate Suburbs	Non- Metro Areas	Decile Totals
1. (high)		.3% (4.8)	5.3% (80.3)	.2% (2.5)	.0% (.7)	.7% (11.8)	6.5
2.	32.4%	1.4 (20.8)	3.8 (55.8)	.3 (4.6)	.8 (12.1)	.5 (6.8)	6.8
3.			2.4 (32.8)	1.3 (18.5)	2.5 (34.1)	1.1 (14.6)	7.3
4.		.3 (5.5)	2.3 (38.3)	.6 (9.1)	1.6 (26.5)	1.3 (20.6)	6.1
5.			2.3 (33.6)	1.0 (14.6)	2.5 (36.2)	1.0 (15.2)	6.8
6.		.1 (1.5)	1.7 (24.2)	1.1 (15.5)	2.4 (34.0)	1.7 (24.9)	7.0
7.			1.4 (20.2)	2.1 (30.9)	1.8 (27.1)	1.5 (21.8)	6.8
8.			1.5 (23.1)	1.1 (17.2)	2.5 (37.6)	1.6 (24.7)	6.7
9.			1.1 (16.2)	.2 (3.2)	3.5 (51.8)	1.9 (28.8)	6.7
10. (low)			.6 (8.8)	.5 (6.7)	2.8 (41.1)	2.9 (43.3)	6.8
	32%	2	22	8	20	14	100